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ABSTRACT

Two papers by the same author describe efforts to predict school dropouts by collecting information from students and teachers during grade seven. In the first paper, "Trying To Predict School Dropouts at Grade Seven," researchers developed an instrument, "Is This True for Me?" based on the Junior Index of Motivation (JIM) originally developed in the 1960s, along with procedures for measuring student motivation and assessing risk. Information collected from several middle level schools in six urban districts was analyzed, and a report was prepared for each school and school district that was involved. This instrument was studied in more detail as described in the second paper, "Further Development and Validation of a Motivation Index." Teachers in 33 middle level or junior high schools in 6 urban districts administered the "Is This True for Me?" scale to all seventh graders. Results indicate that the revised JIM scale, "Is This True for Me?" is a valid measure of students' motivation to learn in school. It should be a useful predictor of the likelihood of young people dropping out of school before graduation. The scale is attached. (SLD)

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Trying to Predict Dropouts at Grade Seven

Jack Frymier

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March 22-25, 1997

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Trying to Predict School Dropouts at Grade Seven

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The purpose of this paper is to describe an attempt to predict school dropouts by collecting information from students and teachers during grade seven. The paper will include a description of the assumptions behind the effort, the procedures employed, and how to interpret the information provided. You are encouraged to use this information to target students who may be most likely to drop out of school and to work to keep those students in school through graduation. You are also encouraged to share the results of your efforts with Phi Delta Kappa so that this process can be improved.

We assume that it is important for young people to stay in school and graduate. Stated in the extreme, we believe that young people are better off in school than out of school, and even a poor education is better than no education at all. Toward that end, we have conceptualized and initiated this process of trying to predict school dropouts at grade seven as a way of providing teachers and administrators with information that may help them to help young people stay in school and graduate.

To determine whether the process that we envisioned was both possible and practical, we invited a few urban school districts to collect information from students and teachers at seventh grade level, with the intention of trying to identify potential dropouts while there was still time to do something about keeping students in school through graduation. Previous studies have shown that many students (maybe as many as 10 percent) finish eighth grade, but never even show up at the high school to continue their education. Grades eight, nine, and ten are especially important times in the life of adolescents, and more students drop out of school during those three years than during any other years of school.

The instruments and procedures employed in this attempt to predict school dropouts have been developed over the years, and have been brought together in this project in an attempt to help people in the public schools address a problem that all school people face: how to encourage young people who may be inclined to dropout of school stay in school and graduate.

We did seven things to accomplish this project: (1) developed an instrument and procedures for measuring motivation and assessing risk; (2) invited schools to participate; (3) provided materials for students and teachers: (4) asked schools to collect information during May 1996; (5) analyzed the information collected; and (6) prepared a report for each school and school district that was involved. Following these steps, we (7) will ask each district to provide evaluative feedback regarding the usefulness and appropriateness of what we had done. Steps one and five are described below. The remaining steps are not described.

Step 1. Developed and Instrument and Procedures: We decided to develop an instrument and procedures that would generate information from students about motivation and from teachers about risk that could be recorded on a common response form which would include the student's name and ID number, so students identified as likely to drop out of school could be targeted for assistance. We drew upon three primary references:

> Jack Frymier. "Development and Validation of a Motivation Index." *Theory Into Practice* , vol. 9 (February 1970), pp. 56-88.
>
> Jack Frymier. *Growing Up Is Risky Business and Schools Are Not to Blame*. (Bloomington, IN: Phi Delta Kappa, 1992), 273 pp.
>
> Jack Frymier. *Assessing and Predicting Risk Among Students in School*. (Bloomington, IN: Phi Delta Kappa, 1992), 340 pp.

The first reference describes the development and validation of an 80-item instrument designed to assess a student's desire to do good work in school, the *Junior Index of Motivation*, or JIM Scale, as it is commonly called ("junior" refers to "junior high school," the level at which the instrument was developed). For the purposes of the present project, 64 of the 80 Jim Scale items were selected for inclusion in an *Is This True for Me?* questionnaire for use with middle level or junior high school students. In addition, space on the same form was made available for teachers to respond to 30 items about risk that were drawn from the *Phi Delta Kappa Risk Scale*, as described in the last two publications listed above. In both instances, the exact content of the items was maintained, but the form of the response requested differed from that described in the above publications.

For example, in the original version, students responded to the Jim Scale according to a Likert-style scale:

+2 +1 -1 -2

which would indicate a range of agreement from "strong agreement" to "strong disagreement," but on the *Is This True for Me?* form, students were asked to respond "Yes" or "No" to each of the 64 JIM Scale items. Only 42 of the 64 items on the instrument were scored for motivation; the remaining were included as filler items. Motivation scores ranged from 42 to 84.

Teachers were asked to respond "Yes," "No," or "Don't Know" to each of 24 *Risk Scale* items, using their professional judgment and their knowledge about each student. Six other items were not scored. For the purposes of this project, a "Yes" response was accorded a value of "2," a "No" response was accorded a value of "0," and a "Don't Know" response by teachers was accorded a value of "1" in determining a total *Risk Scale* score, according to teachers' estimates of risk for each student involved. Risk scores ranged from 0 to 24.

Step 5. Data Were Analyzed: Students in several middle level schools in six urban districts responded to the instrument, *Is This True for Me?*, and teachers of those students then

responded to the *Risk Scale* items and recorded their responses on the students' answer blank. A sample (N = 956) of students drawn from five schools in two cities was used as a baseline to determine cut off points (i.e., median values on motivation and risk measures), and each student was categorized in one of four possible categories for the purpose of predicting the possibility of dropping out of school:

Motivation	Risk	Dropout Score
High Motivation	Low Risk	0
High Motivation	High Risk	1
Low Motivation	Low Risk	1
Low Motivation	High Risk	2

For the purposes of this project, students in the HM/LR category were presumed to be least likely to drop out of school, and were accorded a Dropout Score of "0". Students in the LM/HR category were presumed to be most likely to drop out of school, and were accorded a Dropout Score of "2". Students in either of the two middle categories were assumed to be in the mid-range of possibilities regarding the likelihood of dropping out of school, and were accorded a Dropout Score of "1".

By way of illustration, students whose motivation scores were in the upper half of the sample distribution (i.e., motivation score of 63 or higher) and whose risk scores were in the lower half of the sample distribution (i.e., 14 or lower) were assumed to be least likely to drop out of school, and were accorded a dropout prediction score of "0". The "0" score does not mean that such students will not drop out of school, only that they are less likely to dropout than students whose scores were in the other half of the two distributions. Likewise, a Dropout Score of "2" does not mean that a student is certain to drop out of school, only that that student is more likely to dropout than a student with a score of "1" or "0".

On the printouts provided to each school, "MOTIVE" represents the modified JIM Scale score of motivation, as determined by students' responses to 42 motivation items. "RISK" represents a teacher's estimate of the degree of risk evident in that student's life, according to the 24 risk scale items developed and validated in the Phi Delta Kappa Study of Students At Risk. The DROPOUT score on the printout was arrived at, as described in the paragraphs above.

Materials related to the publications cited in this paper have been made available to the school district office personnel. For further information contact:

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Further Development and Validation of a Motivation Index

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Introduction

Motivation to learn is an important theoretical construct and a meaningful classroom reality. Teachers, students, parents, and others constantly refer to motivation as a factor that both relates to and affects learning in school, but assessing motivation is easier said than done. There are not many instruments with which to assess motivation in school in the same way that educators can measure academic achievement or intelligence. Given the current concern about achievement and dropping out of school, the need for a valid and reliable way to assess motivation to learn in school is an important consideration for teachers and administrators.

The *Junior Index of Motivation* (JIM Scale) was originally developed for use with junior high school students during the 1960s, and complete information about the development and validation of the instrument was first published in 1970 [1]. The purpose of this paper is to describe a study that was accomplished in 1996 regarding further validation of the JIM Scale, including refinements made in scoring the scale and interpreting results.

The present study began with the assumption that the original work on the JIM Scale had determined its basic validity and reliability, but further work was necessary to ascertain its usefulness and validity in the context of schools and schooling in America today. A brief summary of the original research is described below as a backdrop to the present research effort.

Theoretical and Operational Assumptions in the Earlier Research

In the original report

> . . . motivation was assumed to be something which came from *within* rather than something that came from *without*. That is, motivation toward school was assumed to represent an internalized state of being which manifested itself outwardly in particular ways of behaving. . . motivation was conceived of as that which a student *had* or *was* rather than that which a teacher or other person did to him. (italics in the original)

It was also assumed that motivation has several aspects or facets. For instance, it was assumed that motivation would manifest itself though an individual's personality structure, his attitudinal structure, and his value structure. Accordingly, it was further assumed that motivation toward school would include

such areas as an individual's attitude toward school, the extent to which he valued education, his feelings for other people, the value which he attributed to ideas, his concern for material things, his personal determination, and his attitude toward himself, among other things. [2]

It was also felt that the instrument should be "conventional" in nature: verbal, typical, and reasonably short. Items should be short, easy to respond to, and relatively unambiguous. Items were phrased in such a way that they would be at least partially projective in nature.

> Rather than require a student to respond to an item as if it applied directly to him, each item was phrased so that it would seem to apply to "most people," or was completely impersonal altogether. It was hoped that this oblique approach would enable youngsters to project their fundamental feelings into responses without apparently exposing those deep-seated values and commitments which are inherent in a response to more personalized-type items (e.g., "I feel that . . ." or "My main problem is . . ."). . . .
>
> Many items were also phrased with a value hierarchy readily apparent. This technique was designed to require the respondent to make a choice between two alternatives. For instance, one such item is: "Being right is more important than being kind." It was hoped that such phraseology would distill value sentiment to an observable surface. . . .
>
> Fourth, the instruments were always administered under "normal" classroom conditions. In other words, the regular teacher always administered the . . . instrument to his own students, and the students always signed their names to the answer sheet. [3]
>
> . . . teachers were asked to identify high motivated and low motivated youngsters in their classes on the basis of their experience with the students. When teachers were asked to make these judgments, two kinds of conditions were required: first, the "best" teachers were identified, and second, the teachers were never asked to make these judgments about students until late winter or early spring of any given school year. [4]
>
> It was assumed . . . that experienced teachers can recognize motivation in their classrooms even if they do not know exactly what it is. This may be a questionable assumption. It is similar to the comment attributed to Binet that "one does not have to know what a mountain is made of to find out how high it is." [5]

Within this theoretical framework, the original research reported a series of studies in which groups of students known (according to their teachers' judgment) to differ in various ways (e.g., motivation, achievement in relation to ability, etc.) were compared in their responses to items selected or created on the basis of the rationale described above. Items that discriminated

repeatedly between students known to differ comprised the final JIM Scale. In the next section, we will describe the problem and procedures employed in the present study.

The Problem

Is the *Junior Index of Motivation* (JIM Scale) a valid measure of students' motivation? Will JIM Scale items discriminate between students whose motivation levels are known to differ? The purpose of this research was to answer questions such as these. The following three hypotheses were tested:

1. Students seen by their teachers as being at risk will respond differently to items on the JIM Scale than students who are seen as not being at risk.

2. Students seen by their teachers as "Good Students" will respond differently to JIM Scale items than students seen by their teachers as "Poor Students."

3. Students seen by their teachers as "Good Students" will get higher total JIM Scale scores than students seen by their teachers as "Poor Students."

The Procedures

The Instrument Used: In its original form, the JIM Scale was an 80-item instrument (although only 50 items were scored) that students responded to according to Likert-type options: +2, +1, -1, -2. For the purposes of the present research, 62 of the original 80 items were selected (42 of the 50 that were originally scored, 20 of the others), and two new items were prepared. The resultant 64-item scale was printed on an optical-scan form titled "Is This True for Me?" There was also room on the optical-scan form for teachers to respond to 24 items about risk and 6 items about a student's learning characteristics that were not explicated on the form. After they had written their name, ID number, age, race/ethnic background, gender, and grade level on the printed form, students were directed to respond to each JIM Scale item by indicating "Yes" or "No" to each statement, answering the question, "Is this true for me?"

Teachers in 33 middle level or junior high schools in six large urban school districts (i.e., cities in which the population of the total metropolitan area comprised more than one million persons) administered the "Is This True for Me?" instrument (i.e., the revised JIM Scale) to all of the seventh grade students in those schools during May 1996. In addition, each teacher also responded to 30 statements about each student who completed the scale. These 30 statements included 24 Risk Scale items and 6 Learner Characteristics Scale items. Precise instructions to teachers and students are described below.

Instructions to Teachers: A four-page fold-out was made available to each seventh grade teacher which included these general instructions:

Included with these materials are questionnaires for students titled "Is This True for Me?" The questionnaires were designed to determine what students think about things that affect how they function in school. Do two things: (1) ask the students to complete the questionnaire, then (2) respond to the 30 sets of circles located at the bottom of the second page (under "For School Use Only") about each student who completes the questionnaire, according to the directions "Instructions for Teachers" printed on the front page and "Student Attributes" described inside this booklet. Please do NOT complete your portion of the questionnaire while the students are in the room.

Be sure that every student has a No. 2 pencil, then distribute the questionnaires to students and say:

Today we want to ask you to respond to a series of statements about what you think about things that affect how you do in school. . . . Listed below are several statements. Read each one carefully, then ask yourself this question: "Is this statement true for me?" If the statement is true for you, fill in the oval under "Yes." If the statement is not true for you, fill in the oval under "No."

After you have collected all of the materials, and after the students have left the classroom, complete the 30 items at the bottom on the back of each questionnaire, according to the instructions printed (below). Please do this carefully and thoughtfully. It is important to have your best professional judgment about each student.

On each student's questionnaire there is a box marked "For School Use Only." You can see three circles preceded by numbers that represent items. Your task is to respond to those 30 items for each student, on his or her answer blank. The content of each "item" is described on the two pages that follow. Briefly, each item describes how a student or a student's home situation might be characterized: what the student is like, or what the student's home situation is like. The items were developed by researchers over the years to differentiate students who are most at risk of dropping out of school from those who are least at risk of dropping out of school. But we must have good information on each item, so we are asking you to tell us what you know about each student.

You know your students well. You have worked with these students for many months. Use everything you know about each student to make a sound, professional assessment. If you need additional information, use a student's cumulative folder, the computer database, or talk with the student's guidance counselor. It is important for the district to be able to identify students who may be at risk of dropping out of school so we can help each student stay in

school, learn, and graduate. Your knowledge of each student's background and his or her personal characteristics are especially important.

After students have responded to the scale, look at each student's answer blank carefully to be certain that you know which student you are providing information for. Second, fill in one circle for each item as described on the next two pages, according to the following scale:

Y	N	D
O	O	O

"Y" means "Yes, this is characteristic of this student."
"N" means "No, this is not characteristic of this student."
"D" means "I don't know enough about the student to be certain that this is or is not characteristic of the student, and I was unable to find the necessary information.

This is very important. Please accomplish this task with great care. We are depending on your experience, your intelligence, and your good judgment to help us identify students who are most likely to drop out of school before graduation. Do not study how a student responded to any item on the questionnaire, but use your own professional judgment. Thank you for your assistance. Your assessments will be very helpful.

Teachers who participated in the project had been asked by their principals and superintendents to assist in a pilot study to try to predict which students were likely to drop out of school by collecting information from students and teachers at the seventh grade level. Each school was promised a printout that would list each seventh grade student who completed the instrument and the probability that that student would drop out of school before graduation, based on the information provided by the students and teachers at each school.

In all, there were 24 risk items and 6 learner characteristic items. Teachers responded "Yes," "No," or "Don't Know" to each of these 30 items on the answer blank on which students had responded to the motivation index. Each teacher provided information for about 20 students in his or her class.

As described above, there were 24 items designed to identify risk factors that might be present in a student's life to which teachers were asked to respond. These items were developed and validated in the Phi Delta Kappa Study of Students At Risk, and were based on information provided by teachers who knew their students well and who had access to information about each student. [6] Three items are cited below as illustration:

9. The student does NOT live with his or her real mother and real father, but lives instead with the real mother and a stepfather, or the real father and a stepmother, with a single parent, a grand parent, a foster parent, or in an institution.

19. There is evidence that the student has been using drugs or selling drugs during the past year.

26. The student failed one or more courses last year, or the student's average grade is "D" or lower.

Eight of the risk items pertained to the presence or absence of family problems in the life of an individual child (e.g., item 9 above), nine to personal problems (e.g., item 19 above), and seven to school problems (e.g., item 26 above). For the purposes of the present study, only responses in which the teacher indicated "Yes" or "No" were included for analysis. If a teacher reported that he or she "Did Not Know" whether or not the risk factor described was evident in a child's life, that instance was not included. Only cases in which teachers reported unequivocally that "Yes, that is characteristic of this student," or "No, that is not characteristic of this student" were included in the final tabulations. (In other words, only students known to be characterized in particular ways were included in the various analyses.)

After "Yes" responses were accorded a value of "1," "No" responses were accorded a value of "0," and "Don't Know" responses were excluded from calculations, information about the number of risk factors present in a student's life were tabulated three ways. First, scores were summed for each student and a "Total Risk Score" was determined. Second, scores were summed for each of the three problem areas described above, and a "Family Problems Score," "Personal Problems Score," and "School Problems Score" was also determined for each student. Third, various analyses were accomplished using individual items of the Risk Scale as the basis for analysis.

The remaining six of the 30 items to which teachers responded had been developed originally by teachers and researchers in the Annehurst Curriculum Classification System project. [7] In the present study, teachers were asked to respond to these items in terms of whether or not the statements accurately characterized each student for whom they were making assessments by indicating "Yes," "No," or "Don't Know," as described before. Two items below are illustrative:

3. The student is motivated, energetic, persistent, shows initiative, tries hard, and is inquisitive, curious, purposeful, and able to delay gratification.

4. The student has a good personality and is patient, open-minded, good natured, confident, dependable, optimistic, is not impulsive, does not blame others, and accepts responsibility for his or her own actions.

For the purposes of the present project, "Yes" responses were accorded a value of "1," "No" responses were accorded a value of "0," and "Don't Know" responses were not included in the various tabulations. Responses by teachers were summed for each student, resulting in scores ranging from "0" (i.e., the student's teacher responded "No" to all six items") to "6" (i.e., the student's teacher responded "Yes" to all six items). It was assumed that students whose total scores were above the median were seen by their teachers as "Good Students," and those whose scores fell below the median were seen by their teachers as "Poor Students."

The Sample: Using the procedures described here, usable information was collected on 3,781 seventh grade students from 29 junior high or middle schools in six large city school districts throughout the United States. Approximately 200 teachers provided information about each of their students during May 1996. Teachers in some schools were reluctant to provide data about the risk items (because of the concerns for confidentiality). Students in those schools were not included in the analyses reported here, since only JIM Scale information was available for such students; risk information and learner characteristics information was not available.

In the reports of the statistical analyses that follow, students for whom their teachers responded "I don't know enough about the student to be certain that this is or is not characteristic of the student" to any of the various items were not included in the various analyses, as said before. Only students for whom complete information was available were included in the analyses reported below. This number ranged from a low of about 2,400 students for certain analyses to a high of more than 3,700 students for other analyses.

Of the 3,781 seventh graders who completed the JIM Scale and for whom teachers provided information about risk factors and learner characteristics, 48% indicated that they were female, 47% indicated that they were male, and 5% did not respond to that item. In all, 29% of the students indicated that they were white, non-Hispanic, while 71% indicated that they were black African/American or of some other racial/ethnic background. The overwhelming majority of these students reported that they were black.

Data Analyses: First, descriptive information was generated for the entire sample of 3,781 students, including descriptive data about students' responses to questionnaire items and teachers' responses to risk and learner characteristics items. Second, a series of comparisons of student groups known to differ (according to information provided by teachers to the 30 items described above about risk and learner characteristics) to JIM Scale items and various summed scores (e.g., JIM Scale, Total Risk Score, Family Problems Score, Personal Problems Score, School Problems Score, and "Good Students," "Poor Students" Learner Characteristics Scores) were also accomplished using chi square analysis, analysis of variance, t-test analysis, and correlation analysis.

The Results

Initially, two separate analyses of JIM Scale items were accomplished on the basis of teachers' responses to the 30 statements that comprised the 24-item Risk Scale (sub-scales

included an 8-item Family Problems Scale, a 9-item Personal Problems Scale, and a 7-item School Problems Scale) and the 6-item Learner Characteristics Scale. Although complete data are not reported here, it is important to recognize that many teachers indicated "Don't Know" to various Risk Scale items, thus the number of students known to be at risk on a particular risk item was sometimes very small in comparison to the number of students known not to be at risk.

First, students were separated on the basis of whether their teachers had responded "Yes" or "No" to a given item on the Risk Scale (recall that students whose teachers had indicated "Don't Know" to a particular item were excluded from these analyses), and the responses of students in these two groups to each of the 64 items on the Jim Scale were compared by use of the chi square statistic.

Second, students were separated on the basis of whether their teachers had responded "Yes" or "No" to items on the Learner Characteristics Scale (again, "Don't Know" responses were excluded from consideration) and Learner Characteristics Scores were summed. Those students whose Learner Characteristics Scale scores fell above the median were assumed to be "Good Students" in their teachers' eyes, and those whose scores fell below the median were assumed to be "Poor Students" in their teachers' eyes. The responses of "Good Students" to individual items on the JIM Scale were compared to the responses of "Poor Students" by use of the chi square statistic.

A summary of these two comparisons is presented below. A total of 1,536 chi square analyses were accomplished in the first series of comparisons (i.e., 64 JIM Scale items x 24 Risk scale items = 1,536). Comparisons of responses of students that teachers thought differed on Family Problems items of the Risk Scale to JIM Scale items indicated that 35 of the 512 analyses differed at the .001 level of confidence. Comparisons of responses of students that teachers thought differed on Personal Problems items of the Risk Scale to JIM Scale items indicated that 29 of the 576 analyses differed at the .001 level of confidence. Comparisons of responses of students that teachers thought differed on School Problems items of the Risk Scale to JIM Scale items indicated that 199 of the 448 analyses differed at the .001 level.

In the second comparison, 64 analyses were accomplished (i.e., how "Good Students" and "Poor Students" responded to each of the 64 JIM Scale items). Students whose Learner Characteristics Scale scores were in the upper half were assumed to be "Good Students," while those whose scores were in the lower half were assumed to be "Poor Students." A careful study of these 64 analyses indicated that 42 of the 64 JIM Scale item comparisons differed at the .001 level of confidence.

These two comparisons indicated that the JIM Scale items discriminated between students whom their teachers saw as "Good Students" and "Poor Students," and between students who had no school problems and those who had school problems, as measured by the School Problems sub-scale of the Risk Scale. Students who differed on the Family Problems Scale and the Personal Problems scale generally did not respond differently to JIM Scale items.

Since these two comparisons suggested that certain JIM Scale items differentiated urban seventh graders whose teachers saw them in very different ways (and ways definitely related to motivation), all of the information available regarding JIM Scale item validity (from the earlier research and from the present study) was examined, and a slightly revised version of the JIM Scale emerged. This was a newly constituted 40-item scale. Most of the items drawn from the earlier research for use in this study were verified as items that differentiated students known to differ in their motivation, and a few items originally included on the scale but not scored in the earlier version, were added to the final list of items to be scored.

Next, we went back and re-scored each of the 3,781 students' JIM Scale responses according to the newly constituted definition of items and computed a JIM Scale score for each student. We divided the total group into two sub-groups, Good Students and Poor Students, exactly as described above using the Learner Characteristics Scale, and compared these two groups by computing JIM Scale means and running a "t" test to determine the statistical significance of the difference between the means. Students who were seen by their teachers as Good Students had a mean JIM Scale score of 64.96, whereas students seen by their teachers as Poor Students had a mean JIM Scale score of 60.54, with a resultant t-test value of 19.86, indicating differences that were statistically significant at the .001 level of confidence. In other words, Good Students had higher motivation scores, Poor Students had lower motivation scores.

Hypothesis 1 was partially supported. Students seen by their teachers as being at risk on school problems responded differently to JIM Scale items from students seen by their teachers as not being at risk on the School Problems sub-scale of the Risk Scale. Those differences were significant statistically. There were only a few differences that were significant statistically between students seen by their teachers as being at risk on the Family Problems or the Personal Problems sub-scales of the Risk Scale, thus it was assumed that those sub-scales did not differentiate among students who responded to the JIM Scale.

Hypothesis 2 was supported. Students seen by their teachers as Good Students responded differently to JIM Scale items than students seen by their teachers as Poor Students. Those differences were significant statistically.

Hypotheses 3 was supported. Students seen by their teachers as Good Students made higher JIM Scale scores than students seen by their teachers as Poor Students. Those differences were significant statistically.

Conclusions and Implications

The revised JIM Scale is a valid measure of students' motivation to learn in school. It should be a useful predictor of the likelihood of young people dropping out of school before graduation. Since the Risk Scale has already been used successfully to predict school dropouts, if the JIM Scale and Risk Scale were used together, the probability of predicting school dropouts even more precisely than with either scale independently means that their combined use would provide educators with a more powerful tool than either instrument provides by itself.

Using some combination of High Risk/Low Motivation scores (e.g., upper half/lower half or upper third/lower third) should predict the likelihood of adolescents leaving school before graduation fairly accurately. Likewise, using some combination of Low Risk/High Motivation scores should predict the likelihood of adolescents staying in school through graduation (and perhaps going on to college) fairly accurately. Longitudinal studies of students over time would be important in this area. Both the JIM Scale and the Phi Delta Kappa Risk Scale lend themselves to this kind of research.

References

1. Jack Frymier, "Development and Validation of a Motivation Index," *Theory Into Practice*, vol. 9 (February 1970), pp. 56-88.

2. Ibid., p. 56.

3. Ibid., p. 58.

4. Ibid.

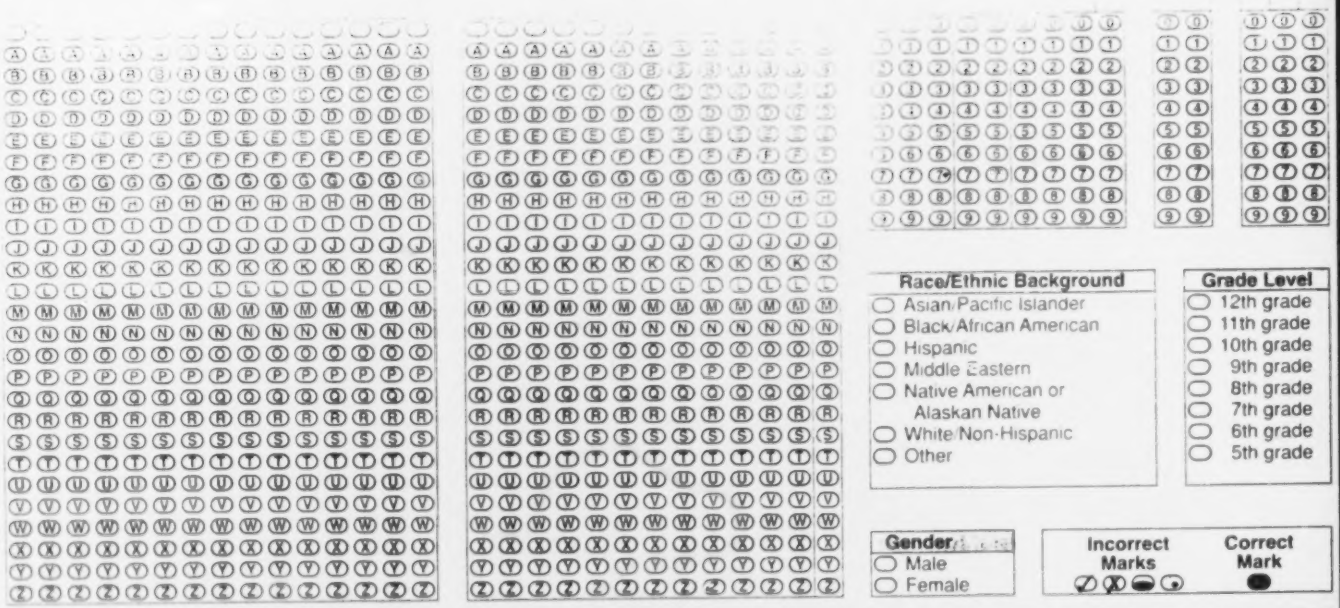
5. Ibid., p. 59.

6. Jack Frymier, et al., *Assessing and Predicting Risk Among Students At School* (Bloomington, IN: Phi Delta Kappa, 1992), Appendix C.

7. Jack Frymier, *Annehurst Curriculum Classification System* (West Lafayette, IN: Kappa Delta Pi, 1976), Chapter 4.

Is This True for You?

First Name | Last Name | Age | School ID



Race/Ethnic Background

- ○ Asian/Pacific Islander
- ○ Black/African American
- ○ Hispanic
- ○ Middle Eastern
- ○ Native American or Alaskan Native
- ○ White/Non-Hispanic
- ○ Other

Grade Level

- ○ 12th grade
- ○ 11th grade
- ○ 10th grade
- ○ 9th grade
- ○ 8th grade
- ○ 7th grade
- ○ 6th grade
- ○ 5th grade

Gender

- ○ Male
- ○ Female

Incorrect Marks ⊘ ⊗ ⊖ ⊙ **Correct Mark** ●

Directions

Listed below are several statements. Read each one carefully, then ask yourself this question: "Is this statement true for me?" If the statement is true for you, fill in the oval under "YES". If the statement is not true for you, fill in the oval under "NO".

Statement	Yes	No
1. Late afternoon is the best time of day	○	○
2. Students should be made to go to school until they are 18 years old	○	○
3. Being right is more important than being kind	○	○
4. School is more fun when teachers let students do things they want to	○	○
5. Students who try should get good grades, even if they make mistakes	○	○
6. Successful people are those who make the most money.	○	○
7. The best way to spend a free evening is with a good book	○	○
8. Most young people do not want to go to school	○	○
9. Some new ideas are interesting, but most of them are not	○	○
10. Practical people are usually highly respected	○	○
11. Knowing the answer is more important than knowing		
12. Many young people feel grouchy	○	○
13. The best people refuse to depend on other persons	○	○
14. Some teachers make school more interesting than others	○	○
15. A person's feelings on a topic are not as important as the facts	○	○
16. There are more important things in the world than making money	○	○
17. It does not really help much to study about people from other lands	○	○
18. Some students have to study more than others	○	○
19. I am certain that I will finish high school, graduate, and go to college	○	○
20. Many youngsters often want to run away from home	○	○
21. Being a good speaker is just as important as being a good speller	○	○
22. Our whole trouble is that we won't let God help us	○	○
23. [illegible] worry more before they take a test than during the test	○	○

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Statement	Yes	No
24. No one seems to understand young people	○	○
25. Learning to cooperate is more important than learning to compete	○	○
26. Most people would like school better if teachers did not give grades	○	○
27. The world we live in is a pretty lonesome place	○	○
28. Social progress can only be achieved by returning to our glorious past	○	○
29. It is very foolish to advocate government support of education	○	○
30. There is nothing new under the sun	○	○
31. All those who fail have worked in vain	○	○
32. Most people just don't give a "darn" for others	○	○
33. The best way to achieve security is for the government to guarantee jobs	○	○
34. Some people do not appreciate the value of an education	○	○
35. Most new ideas are not worth the paper they are printed on	○	○
36. It is better to forget than to forgive	○	○
37. Young people should be free to follow their own desires	○	○
38. Most people just don't know what is good for them	○	○
39. Understanding yourself helps one understand others	○	○
40. Familiarity breeds contempt, so one should never be too friendly	○	○
41. There is a real limit to human intelligence	○	○
42. People who are insulted generally deserve to be	○	○
43. Wasting time is even worse than wasting money	○	○

Statement	Yes	No
44. People who are quick thinkers usually jump to conclusions	○	○
45. I will definitely go to college, graduate, then go on to graduate school	○	○
46. Most people do not have good ideas until they grow up.	○	○
47. Looking good is just as important as being good	○	○
48. The best part of education is that which people teach themselves	○	○
49. Most people cannot learn from the experience of others.	○	○
50. The dreamer is a danger to society	○	○
51. Most teachers like to drive students if they have the chance	○	○
52. God helps those who help themselves	○	○
53. One can never desire too much of a good thing	○	○
54. Being a liar is better than being a gossip	○	○
55. Asking questions usually gets you into trouble	○	○
56. Not many people in the world are really kind	○	○
57. The biggest part of being successful is determination	○	○
58. School is not all that it's cracked up to be	○	○
59. Everything that people do is either right or wrong	○	○
60. Quick thinking is always better than being polite	○	○
61. Experience may be a good teacher, but schools are better	○	○
62. Many children have often been punished without cause.	○	○
63. Pupils who copy during an examination should fail the test	○	○
64. Hope is really no better than worry	○	○

For School Use Only

1. Ⓨ	Ⓝ	Ⓓ	6. Ⓨ	Ⓝ	Ⓓ	11. Ⓨ	Ⓝ	Ⓓ	16. Ⓨ	Ⓝ	Ⓓ	21. Ⓨ	Ⓝ	Ⓓ	26. Ⓨ	Ⓝ	Ⓓ
2. Ⓨ	Ⓝ	Ⓓ	7. Ⓨ	Ⓝ	Ⓓ	12. Ⓨ	Ⓝ	Ⓓ	17. Ⓨ	Ⓝ	Ⓓ	22. Ⓨ	Ⓝ	Ⓓ	27. Ⓨ	Ⓝ	Ⓓ
3. Ⓨ	Ⓝ	Ⓓ	8. Ⓨ	Ⓝ	Ⓓ	13. Ⓨ	Ⓝ	Ⓓ	18. Ⓨ	Ⓝ	Ⓓ	23. Ⓨ	Ⓝ	Ⓓ	28. Ⓨ	Ⓝ	Ⓓ
4. Ⓨ	Ⓝ	Ⓓ	9. Ⓨ	Ⓝ	Ⓓ	14. Ⓨ	Ⓝ	Ⓓ	19. Ⓨ	Ⓝ	Ⓓ				29. Ⓨ	Ⓝ	Ⓓ
5. Ⓨ	Ⓝ	Ⓓ	10. Ⓨ	Ⓝ	Ⓓ	15. Ⓨ	Ⓝ	Ⓓ	20. Ⓨ	Ⓝ	Ⓓ				30. Ⓨ	Ⓝ	Ⓓ

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INSTRUCTIONS TO TEACHERS

(please read very carefully)

On each student's questionnaire there is a box marked "For School Use Only." You can see three circles preceded by numbers that represent items. Your task is to respond to those 30 items for each student, on his or her answer blank. The content of each "item" is described on the two pages that follow. Briefly, each item describes how a student or a student's home situation might be characterized: what the student is like, or what the student's home situation is like. The items were developed by researchers over the years to differentiate students who are most at risk of dropping out of school from those who are least at risk of dropping out of school. But we must have good information on each item, so we are asking you to tell us what you know about each student. (Please use a No. 2 pencil only; do not use a pen or ink marker.)

You know your students well. You have worked with these students for many months. Use everything you know about each student to make a sound, professional assessment. If you need additional information, use a student's cumulative folder, the computer database, or talk with the student's guidance counselor. It is important for the district to be able to identify students who may be at risk of dropping out of school so we can help each student stay in school, learn, and graduate. Your knowledge of each student's background and his or her personal characteristics are especially important.

After students have responded to the scale, look at a student's answer blank carefully to be certain that you know which student you are providing information for. Second, fill in one circle for each item as described on the next two pages, according to the following scale:

Y	N	D
O	O	O

"Y" means "Yes, this is characteristic of this student."

"N" means "No, this is not characteristic of this student."

"D" means "I don't know enough about the student to be certain that this is or is not characteristic of the student, and I was unable to find the necessary information.

Note that the first six items are phrased in positive terms, and the remaining items are phrased in what might be thought of as negative terms. Now, take each student's answer sheet, one at a time, and respond to the items in the box marked "For School Use Only," according to the directions spelled out here. (Remember, use a No. 2 pencil.)

This is very important. Please accomplish this task with great care. We are depending on your experience, your intelligence, and your good judgment to help us identify students who are most likely to drop out of school before graduation. Do not study how a student responded to any item on the questionnaire, but use your own professional judgment. Thank you for your assistance. Your assessments will be very helpful.

Item	Student Attributes
1.	The student has a rich set of previous experiences, has mastered previous learnings, has read a lot, has the skills of learning, and has extensive interests and activities which he or she pursues.
2.	The student is intelligent, quick to learn, has a good memory, is intrigued with complexity, is rational, reflective, and can integrate ideas.
3.	The student is motivated, energetic, persistent, shows initiative, tries hard, and is inquisitive, curious, purposeful, and able to delay gratification.
4.	The student has a good personality and is patient, open-minded, good natured, confident, dependable, optimistic, is not impulsive, does not blame others, and accepts responsibility for his or her own actions.
5.	The student is creative, innovative, flexible, original, a risk taker, fluent with ideas, autonomous, imaginative, and able to form new patterns or relationships.
6.	The student is sociable, cooperative, friendly, empathic, does not hold a grudge, is tolerant, respectful, communicative, and a good participator.
7.	The student's father or mother work as unskilled laborers or are unemployed. (Note: If the mother is a housewife, do not consider her unemployed.)
8.	The student's father or mother did NOT graduate from high school.
9.	The student does NOT live with his or her real mother and real father, but lives instead with the real mother and a stepfather, or the real father and a stepmother, with a single parent, a grand parent, a foster parent, or in an institution.
10.	The student lives in a home situation in which English is NOT the language used most often in the home.
11.	The student's parents' attitudes toward education are basically negative rather than positive.
12.	The student changed his or her place or residence during the past year (i.e., the family moved) or changed the school that he or she attended during the past year.
13.	Either one or both of the student's parents had a major change of health status or died during the past year.
14.	Either one or both of the student's parents lost their job during the past year.
15.	The student had a brother, sister, or close friend who died during the past year.

Item	Student Attributes
16.	The student experienced a serious illness or accident during the past year.
17.	The student attempted suicide during the past year.
18.	The student was involved in a pregnancy during the past year.
19.	There is evidence that the student has been using drugs or selling drugs during the past year.
20.	There is evidence that either one or both parents used drugs, drank excessively, or was an alcoholic during the past year.
21.	There is evidence that the student has been drinking alcohol during the past year.
22.	There is evidence that the student was arrested or convicted of illegal activity during the past year.
23.	The student was suspended from school one or more times last year.
24.	There is evidence that the student was abused, sexually or physically, during the past year.
25.	The student's scores on norm-referenced standardized achievement tests in Reading are below the 20th percentile.
26.	The student failed one or more courses last year, or the student's average grade is "D" or lower.
27.	The student has been retained in grade (i.e., held back) in previous years in school, or is one or more years older than other students in the same grade.
28.	The student was absent from school more than 20 days during the last school year.
29.	The student has a negative sense of self-esteem.
30.	The student has been diagnosed as being eligible for a special education category.

General Instructions

Included with these materials are questionnaires for students titled "Is This True for Me?" The questionnaires were designed to determine what students think about things that affect how they function in school. Do two things: (1) ask the students to complete the questionnaire, then (2) respond to the 30 sets of circles located at the bottom of the second page (under "For School Use Only") about each student who completes the questionnaire, according to the directions "Instructions for Teachers" printed on the front page and "Student Attributes" described inside this booklet. Please do NOT complete your portion of the questionnaire while the students are in the room.

Be sure that every student has a No. 2 pencil, then distribute the questionnaires to students and say:

> Today we want to ask you to respond to a series of statements about what you think about things that affect how you do in school. At the top of the page, where it says "Last Name," please print your last name in the spaces provided, then fill in the appropriate bubbles for each letter of your name. Do the same for your "First Name" and "Middle Initial." (Pause)
>
> Where it says "Student ID Number," pencil in your ID number, then fill in the appropriate bubbles to indicate that number on the form. Start at the left. Where it says "School," please enter these three numbers _____ (note: use the three digit number assigned to your school). (Pause)
>
> Fill in the appropriate bubbles where it says "Race/Ethnic Background," "Age," "Grade Level," and "Gender." (Pause)
>
> Now, follow with me as I read the directions printed on your form: Listed below are several statements. Reach each one carefully, then ask yourself this question: "Is this statement true for me?" If the statement is true for you, fill in the oval under "Yes." If the statement is not true for you, fill in the oval under "No."
>
> Go ahead.

When the students have finished, collect all questionnaire forms and thank the students for their cooperation. Say that when the information has been compiled, you will try to report back to them.

After you have collected all of the materials, and after the students have left the classroom, complete the 30 items at the bottom on the back of each questionnaire, according to the instructions printed elsewhere in this booklet. Please do this carefully and thoughtfully. It is important to have your best professional judgment about each student.